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THE AMPHIBIANS AND REPTILES OF ARKANSAS.

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THE AMPHIBIANS AND REPTILES OF
ARKANSAS.*

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The present list of Arkansas amphibians and reptiles has been compiled with a twofold purpose in view: (1) to place on record a number of species collected by the senior author, which have not been reported from the state previously; (2) to form as complete a list of these animals as our present imperfect knowledge of the herpetology of the state will permit.

In the United States National Museum Collection are a number of specimens obtained by Marcy, Shumard and other members of the Red River Expedition. Some of these are labeled "Red River, Ark.," and "Fort Towson, Red River, Ark.," but were not collected within the limits of the present State of Arkansas.

Such species as *Bufo cognatus* Say, *Thamnophis marciana* B. & G., *Heterodon nasicus* B. & G., and *Crotalus confluentus* Say are members of an entirely different faunal region and are not likely to range east of central Oklahoma. Ruthven† has called attention to the fact that Oklahoma examples of *Thamnophis radix* B. & G. are hard to distinguish from *T. marciana*. Examples of *marciana* from north-central Texas are not typical, and it is extremely doubtful whether this snake occurs north of Texas.

Fort Towson is situated in southeastern Oklahoma. Probably all of the species collected at this station will ultimately be found in southwestern Arkansas.

We have made liberal use of the Fort Smith records in a paper by Robert Baird McLain, entitled, "Notes on a

* Presented to The Academy of Science of St. Louis, March 1, 1909.

† Bull. U. S. Nat. Mus. 61 : 69. 1908

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Collection of Reptiles Made by Mr. C. J. Pierson at Fort Smith, Arkansas, with Remarks on Other Eastern Reptiles." (Wheeling, W. Va., 1899. Published by the author.) McLain's notes are based on specimens presented to the museum of the Leland Stanford Junior University. We must either doubt some of his identifications or else believe that some of Pierson's material was incorrectly labeled as to locality, for it seems hardly possible that such species as *Clemmys insculptus* LeConte, *Tes-tudo polyphemus* Daudin and *Thamnophis sackeri* Kenn. should occur so far out of their natural range.

We are indebted to Dr. Seth Eugene Meek of Chicago for a list of material collected at several stations in Arkansas. This material is a part of the herpetological collection of the Field Museum of Natural History. Mr. Hurter takes this method of thanking Mr. John R. For-dyce, of Little Rock, for assistance rendered him in collecting material, as well as for other courtesies.

We did not deem it necessary to append a bibliography for the reason that in most of the literature at our disposal the Arkansas fauna is referred to in only a general way and furnishes very little authentic data.

A careful perusal of Marcy's "Report on the Red River Expedition" resulted in more eliminations than additions to our original list. The lists of specimens in Cope's "Crocodilians, Lizards and Snakes of North America," furnished us with some data, but much less than we had reason to expect, as this work is supposed to give a list of all of the specimens of these animals that were in the National Collection up to a short time prior to the author's death.

Most of the material collected by Hurter is in his private collection. The Combs lot is widely scattered, but examples of most of the species obtained by him are in the Hurter and Baylor University collections. The Hot Springs specimens in the National collection, secured through Messrs. H. H. and C. S. Brimley, were collected by Combs.

ARKANSAS LOCALITIES REFERRED TO IN THIS PAPER.

Locality.	Collector.	No. of Species.
Altus, Franklin Co.	Hurter	2
Arkadelphia, Clark Co.	Meek	1
Clarksville, Johnson Co.	Meek	1
Donaldson, Hot Springs Co.	Meek	1
Eureka Springs, Carroll Co.	Hurter	3
Fort Smith, Sebastian Co.	Eustis, Whipple, Shumard, Pierson	26
Fayetteville, Washington Co.	Meek	5
Greenway, Clay Co.	Meek	24
Hot Springs, Garland Co.	Combs, Hurter	37
Little Rock, Pulaski Co.	Hurter, Fordyce	18
Paragould, Green Co.	Hurter	14
Pine Bluff, Jefferson Co.	Hurter	7
Texarkana, Miller Co.	Hurter	4
Miscellaneous		9

From the foregoing table the reader can very readily see that we have definite records for only about fifteen out of the seventy-five counties in the State. Hot Springs, Garland County, furnished the largest number of species as a result of the work of two collectors. Combs spent nearly three years in this locality and obtained in all thirty-six species and sub-species. Hurter visited Hot Springs on two occasions, obtaining examples of seventeen species, only one of which had not previously been collected by Combs. At Fort Smith, the earlier collectors, Eustis, Shumard and Whipple, obtained six species that were not found there by Pierson in 1896-97. The results of Meek's work at Greenway, Clay County, and Hurter's at Paragould, Green County, furnish an interesting contrast as the two counties are adjoining. Meek collected twenty-four species, Hurter only fourteen, but the two lots contain representatives of thirty-six different forms, *Sceloporus undulatus* Lat. and *Ambystoma opacum* Gravenhorst being the only two species obtained by both collectors.

COMPARATIVE TABLE OF MISSOURI AND ARKANSAS REPTILES AND AMPHIBIANS.

Amphibia	*Missouri.		Arkansas.†	
Caudata	17		14	
Salientia	15	32	13	27
Reptilia	—		—	
Testudinata	17		14	
Ophidia	43		38	
Lacertilia	8	68	11	63
	—	—	—	—
		100		90

* Based on Hurter's list (1907).

† The present list.

The following species have been recorded from Missouri, but not from Arkansas:

AMPHIBIA.

Cryptobranchus alleghaniensis Daudin	Typhlotriton spelaeus Stejn.
Plethodon erythronotus Green	Acris gryllus LeConte
Spelerpes maculicaudus Cope	Hyla versicolor LeConte
Spelerpes longicaudus Green	‡Hyla carolinensis Pennant
Spelerpes stejnegeri Eignm.	Rana sylvatica LeConte
Spelerpes guttolineatus Holbr.	Rana cantabrigensis Baird
Spelerpes melanopleurus Cope	Rana areolata circulosa R. & D.

REPTILIA.

Trionyx spiniferus LeSeur	Coluber vulpinus B. & G.
Chrysemys cinerea Brown	‡Coluber spiloides D. & B.
‡Chrysemys bellii Gray	Lampropeltis doliatu triangulus Cope
Terrapene carolina Linn.	‡Storeria occipitomaeculata Storer
Carphophis helenae Kenn. = C.	‡Thamnophis radix B. & G.
amoenus Say	‡Sistrurus catenatus Raf.
	‡Zamensis constrictor flaviventris Say

The following species occur in Arkansas, but have not been recorded from Missouri:

AMPHIBIA.

Amphiuma means Linn.	Spelerpes multiplicatus Cope
Ambystoma annulatum Cope	Scaphiopus holbrookii Harlan
Ambystoma jeffersonianum Green	Chorophilus occidentalis B. & G.
Desmognathus brimleyorum Stejn.	Hyla squirella Daudin
	Hyla versicolor chrysoseelis Cope

REPTILIA.

Anolis carolinensis Cuvier	Cnemidophorus gularis B. & G.
Sceloporus consobrinus B. & G.	Thamnophis eques Reuss
	Tropidonotus leberis Linn.

Amphiuma means Linn., *Ambystoma jeffersonianum* Green, and *Scaphiopus holbrookii* Harlan probably range northward into the "sunken lands" of southeastern Missouri. *Ambystoma annulatum* Cope and *Desmognathus brimleyorum* Stejn. are at present known only from the State of Arkansas, and *Spelerpes multiplicatus* Cope

‡ These species may occur in western and southwestern Arkansas. An exploration of the caves of the Ozark Mountain region will probably disclose the presence of cave salamanders (*Spelerpes maculicaudus* and *S. longicaudus*). *Typhlotriton spelaeus* Stejn. may be discovered in some of the Ozark caves but the chances are against it. It has been collected in Barry and Stone Counties, Missouri, but in Carroll County, Arkansas, just across the line, Hurter failed to find any suitable caves.

from Arkansas and Oklahoma. *Cnemidophorus gularis* B. & G., *Sceloporus consobrinus* B. & G., *Thamnophis eques* Reuss, and *Hyla versicolor chrysofelis* Cope are southwestern forms, whose range is extended to central Arkansas. *Chorophilus occidentalis* B. & G., *Hyla squirella* Daudin, and *Anolis carolinensis* Cuvier are typical Austroriparian species that are not likely to occur as far north as Missouri.

The following nineteen of the ninety species and sub-species of Arkansas amphibians and reptiles enumerated in this paper do not occur in eastern Texas:

AMPHIBIA.

Desmognathus brimleyorum Stejn.	Ambystoma jeffersonianum Green
Spelerpes multiplicatus Cope	Amphiuma means Linn.
Hemidaetylium scutatatum Schlegel	Necturus maculatus Linn.
Ambystoma annulatum Cope	Rana palustris LeConte
	Hyla pickeringi Holbrook

REPTILIA.

Chrysemys dorsalis Agass.	Tropidonotus sipedon sipedon Linn.
Chrysemys troosti Holbrook	Tropidonotus cyclopium D. & B.
Graptemys pseudo-geographica LeSeur	Coluber obsoletus confinis B. & G.
Amyda mutica LeSeur	Diadophis punctatus Linn.
	Carphophis vermis Cope

The majority of these are eastern and southeastern forms which find their western limit in Arkansas and the eastern half of Louisiana. Sixty-three of the seventy-one species and sub-species that occur in both Arkansas and the eastern half of Texas are also found in the State of Missouri.

The number of species known to occur in Texas at the present time is as follows:

Tailed amphibians	10*	
Frogs and toads	40*	
Turtles	22†	
Lizards	45†	
Snakes	70†	177

* Based on Strecker's List (Proc. Biol. Soc. Wash. 21 : 53-62), with addition of *Rana clamitans* which has since been found to occur in northeastern Texas.

† From Strecker's Check-List, which is now in press.

Deducting the Arkansas species found in eastern Texas (71) leaves 106 species. After carefully reviewing the work of recent collectors in eastern and northeastern Texas, we feel safe in saying that the greater per cent of future additions to the Arkansas list may be expected to come from the Austroriparian fauna of Louisiana and the Ozarkian fauna of southwestern Missouri rather than from the central of western Oklahoma and the Sonoran of Texas. Such forms as *Cnemidophorus gularis*, *Sceloporus consobrinus* and *Thamnophis eques* are merely outrunners from the Sonoran, whose relationships are not yet fully understood. Probably few true Sonoran species range east of the 98th meridian of longitude in Texas.

LIST OF ARKANSAS AMPHIBIANS AND REPTILES.

Class **Amphibia.**

Order CAUDATA.

Family PLEURODELIDAE.

1. *DIEMYCTYLUS VIRIDESCENS* Rafinesque. Newt or Red Eft.

Southern Missouri, eastern Oklahoma, northern Louisiana, and northeastern Texas. No definite localities for Arkansas, but it probably inhabits the entire State.

Family DESMOGNATHIDAE.

2. *DESMOGNATHUS BRIMLEYORUM* Stejn. Brimley's Salamander.

This species is abundant in the type locality, Hot Springs (Combs and Hurter) and at Little Rock (Hurter). At Little Rock Hurter placed examples of this species and *Spelerpes multiplicatus* Cope in the same bucket just as he captured them. On returning to his room, he discovered that the *Spelerpes* had all been devoured by the hungry *Desmognathus*.

Dr. O. P. Hay in "The Reptiles and Batrachians of Indiana" (p. 452) records *Desmognathus fusca* Hald. from southwestern Arkansas. His record was doubtless based on examples of *D. brimleyorum*, which was not described until some three or four years later.

Family PLETHODONTIDAE.

3. SPELERPES MULTIPLICATUS Cope. Many-ribbed Triton.

The types of this species (No. 4938 U. S. Nat. Mus. Coll. 4 examples, "Red River, Arkansas," Dr. L. A. Edwards, U. S. A.) were doubtless from some locality near the Red River in what is now eastern Oklahoma and not from within the limits of the present State of Arkansas. It is tolerably common at Little Rock (Hurter) and Meek obtained examples at Fayetteville.

4. HEMIDACTYLUM SCUTATUM Schlegel. Scaly Salamander.

Hurter obtained two specimens of this species at Hot Springs. This makes the second record from west of the Mississippi River, the other locality being Bourbon, Crawford County, Missouri.

5. PLETHODON GLUTINOSUS Green. Slimy Salamander.
Hot Springs (Combs), Little Rock (Hurter).

Family AMBYSTOMIDAE.

6. AMBYSTOMA ANNULATUM Cope.

Four specimens of this rare salamander were collected at Hot Springs (Combs). See Proc. U. S. Nat. Mus., 1894: 599; and Proc. Biol. Soc. Wash., 21: 85-88.

7. AMBYSTOMA PUNCTATUM Linn. Spotted Salamander.
Greenway (Meek).

8. AMBYSTOMA OPACUM Gravenhorst. Marbled Salamander.
Paragould (Hurter), Greenway (Meek).

9. AMBYSTOMA MICROSTOMUM Cope. Small-mouthed Salamander.
Fort Smith (Shumard. U. S. Nat. Mus. Coll.)

10. *AMBYSTOMA JEFFERSONIANUM* Green. Jefferson's Salamander.
Greenway (Meek).
11. *AMBYSTOMA TIGRINUM* Green. Tiger Salamander.
Fayetteville (Meek).

Family AMPHIUMIDAE.

12. *AMPHIUMA MEANS* Linn. Congo Eel or Snake.
Pine Bluff (Hurter), Greenway (Meek), Little Rock (Hay).

Family PROTEIDAE.

13. *NECTURUS MACULATUS* Linn. Water-dog or Mud Puppy.
A specimen from the Arkansas River, Arkansas, is in the U. S. National Museum Collection. It was collected by Shumard.

Family SIRENIDAE.

14. *SIREN LACERTINA* Linn. Siren or Two-legged Eel.
Little Rock (Hurter and Fordyce), Greenway (Meek).

Order SALIENTIA.

Family RANAIDAE.

15. *RANA PIPIENS* Schreber. Leopard Frog.
Fort Smith (U. S. Nat. Mus. Coll.), Little Rock (Hurter and Fordyce), Hot Springs (Combs), Greenway (Meek).
16. *RANA CLAMITANS* Lat. Green Frog.
Hot Springs (Combs), Texarkana, Paragould and Little Rock (Hurter).
17. *RANA CATESBIANA* Shaw. Bull Frog.
Fort Smith (Shumard), Hot Springs (Combs).
18. *RANA PALUSTRIS* LeConte. Swamp Frog.
This species occurs in the "sunken lands" of southeastern Missouri and in northern Louisiana, so we feel no hesitancy in including it in the list.

Family ENGYSTOMATIDAE.

19. *ENGYSTOMA CAROLINENSE* Holbrook. Carolina Toad.
Hot Springs (Combs), Greenway (Meek).

Family HYLIDAE.

20. *CHOROPHILUS OCCIDENTALIS* Baird.
Hot Springs (Combs).
21. *CHOROPHILUS TRISERIATUS* Wied. Three-striped
Tree Frog.
This tree frog is a common species in Kansas, Missouri, Oklahoma, Louisiana and northeastern Texas.
22. *ACRIS GRYLLUS CREPITANS* Baird. Western Cricket
Frog.
Fort Smith (Shumard), Paragould (Hurter).
23. *HYLA PICKERINGI* Holbrook. Pickering or Peeping
Frog.
Greenway (Meek).
24. *HYLA SQUIRELLA* Daudin. Squirrel Frog.
Greenway (Meek).

25. *HYLA VERSICOLOR CHRYSOSCELIS* Cope. Western
Chameleon Tree Frog.

Hot Springs (Combs and Hurter). All of the Arkansas Hylas of this type (*versicolor*) that we have examined are referable to this sub-species. All of these were collected in Garland County in the central part of the State. The typical sub-species probably occurs throughout eastern and northern Arkansas.

Family BUFONIDAE.

26. *BUFO AMERICANUS* LeConte. Common Toad.
Fort Smith (Shumard), Hot Springs (Hurter and Combs), Little Rock (Hurter), Clarksville and Greenway (Meek).

Family PELOBATIDAE.

27. SCAPHIOPUS HOLBROOKI Harlan. Hermit Toad.
Greenway (Meek).

Class REPTILIA.

Subclass Chelonia.

Order TESTUDINATA.

Family CHELYDRIDAE.

28. CHELYDRA SERPENTINA Linn. Snapping Turtle.
Hot Springs (Combs), Paragould (Hurter), Pine
Bluff (Hurter).
29. MACROCLEMMYS LACERTINA Schweigger. Alligator
Snapping Turtle.
Little Rock (Hurter), Greenway (Arkansas Univer-
sity Museum), Fort Smith (Pierson).

Family CINOSTERNIDAE.

30. CINOSTERNUM LOUISIANAE Baur. Louisiana Mud
Turtle.
Texarkana (Hurter).
31. STERNOTHOERUS ODORATUS Lat. Musk Turtle or
Stink Pot.
This turtle occurs in southern Missouri, Oklahoma and
northeastern Texas.

32. STERNOTHOERUS TRISTYCHA Agass.

A specimen of this species from Sevier County, Ark-
ansas, is in the Baylor University Museum. It is indis-
tinguishable from central Texas examples. Ditmars*
gives the range of this species as "the southeastern
portion of the United States—Florida to Texas," but
Hurter has examples from as far north as Ozark County,
Missouri.

33. CHRYSEMYS ELEGANS Wied. Cumberland Turtle.
Paragould (Hurter).

* The Reptile Book. N. Y., 1908.

34. *CHRYSEMYS DORSALIS* Agass.

Paragould (Hurter).

35. *CHRYSEMYS TROOSTI* Holbrook. Troost's Turtle.

Greenway (Meek).

36. *CHRYSEMYS TEXANA* Baur.

The range of this species extends from southwestern Missouri (Jasper and Newton Counties) south through western Arkansas and eastern Oklahoma to the Gulf of Mexico and the Rio Grande River. West in Texas to the Pecos. The specimens recorded from Hot Springs under the name of *Chrysemys concinna* are probably referable to this species. The material on which this record was based consisted of several very young examples, too immature for very satisfactory determination. Dr. Baur considered *C. texana* the western representative of *C. concinna*, from which, according to his diagnosis, it differed in many important characters.

37. *GRAPTEMYS PSEUDO-GEOGRAPHICA* LeSeur.

Pine Bluff (Hurter).

38. *GRAPTEMYS GEOGRAPHICA* LeSeur. Geographic Turtle.

We have examined specimens of this species from a number of localities in Missouri and Texas. It also occurs in the rivers of eastern Oklahoma.

39. *TERRAPENE TRIUNGUIS* Agass. Three-toed Box Turtle.

Hot Springs (Combs and Hurter).

40. *TERRAPENE ORNATA* Agass. Painted Box Turtle.

Near Magnolia, Columbia County, Arkansas. (Carapace in Baylor University Museum).

Family TRIONYCHIDAE.

41. *AMYDA MUTICA* LeSeur. Leather Turtle.

Fort Smith (Pierson), Pine Bluff and Little Rock (Hurter).

Subclass **Squamata.**

Order LACERTILIA.

Family IGUANIDAE.

42. *ANOLIS CAROLINENSIS* Cuvier. Chameleon Lizard or Green Lizard.

Hot Springs (Combs and Hurter).

43. *CROTAPHYTUS COLLARIS* Say. Bull Lizard or Collared Lizard.

Fort Smith (Whipple and Pierson), Fayetteville (Meek), Eureka Springs (Hurter), Little Rock (For-dyce).

44. *SCELOPORUS UNdulatus* Lat. Fence Lizard.

Little Rock and Paragould (Hurter), Greenway (Meek), Fort Smith (Pierson).

45. *SCELOPORUS CONSOBRINUS* B. & G. Marcy's Fence Lizard.

Monilton (F. C. Test, U. S. Nat. Mus. Coll.) This is a common species at Hot Springs, where Combs and Hurter obtained large series. Combs collected examples of this lizard among rocks as well as on trees and fences.

46. *PHRYNOSOMA CORNUTUM* Harlan. Horned Toad.

Fort Smith (Shumard).

Family ANGUIDAE.

47. *OPHISAURUS VENTRALIS* Linn. Glass or Joint Snake.

Fort Smith (Pierson, Eustis, and Shumard).

Family TEIIDAE.

48. *CNEMIDOPHORUS GULARIS* B. & G. Swift.

Hot Springs (Combs and Hurter).

Swifts from this locality are typical *gularis* and are fully as large as examples from west Texas and New Mexico.

49. CNEMIDOPHORUS SEXLINEATUS Linn. Six-lined Swift.
Fort Smith (Whipple and Pierson), Fayetteville (Meek), Pine Bluff (Hurter).

Family SCINCIDAE.

50. LYGOSOMA LATERALE Say. Ground Lizard.
Hot Springs (Combs and Hurter), Altus, Little Rock and Paragould (Hurter).

51. PLESTIODON QUINQUELINEATUS Linn. Skink.
Fort Smith (Shumard and Pierson), Greenway (Meek), Little Rock (Hurter), Hot Springs (Combs).

52. PLESTIODON ANTHRACINUS Baird. Coal Skink.
The specimens of this species from the Arkansas River (Woodhouse) in the National Museum Collection, may not have been collected in the State of Arkansas, but as the animal is without a doubt found throughout the entire Ozark region, we feel safe in listing it here. In the adjoining States, *P. anthracinus* has been collected in the following localities:

Missouri: Laclede County (Clark), Pevely, Jefferson County (Hurter).

Oklahoma: Fort Towson (Shumard).

Texas: Brazos River (Shumard).

Order OPHIDIA.

Family COLUBRIDAE.

53. TROPIDONOTUS GRAHAMI B. & G. Graham's Queen Snake.

Paragould (Hurter).

54. TROPIDONOTUS SIPEDON FASCIATUS Linn. Southern Water Snake.

Hot Springs (Combs), Texarkana (Hurter), Fort Smith (Pierson). *T. s. pleuralis* (Cope).

55. TROPIDONOTUS SIPEDON SIPEDON Linn. Common Water Snake.

Greenway (Meek).

56. *TROPIDONOTUS SIPEDON TRANSVERSUS* Hallowell.
Woodhouse's Water Snake.
Hot Springs (Combs and Hurter), Texarkana (Hurter), Fort Smith (Pierson), Little Rock (Hurter). *T. s. erythrogaster* Shaw.
57. *TROPIDONOTUS RHOMBIFER* Hallowell. Holbrook's Water Snake.
Paragould (Hurter), Fort Smith (Pierson).
58. *TROPIDONOTUS CYCLOPIUM* D. & B. Cyclop Snake.
Paragould (Hurter).
59. *TROPIDONOTUS LEBERIS* Linn. Brown Queen Snake.
Hot Springs (Combs and Hurter).
60. *THAMNOPHIS PROXIMUS* Say. Ribbon Snake.
Hot Springs (Combs), Greenway (Meek), Little Rock (Museum of the Leland Stanford Junior University).
61. *THAMNOPHIS SIRTALIS* Linn. Common Garter Snake.
Missouri, Louisiana, Oklahoma, northern Texas, but no definite records from Arkansas.
62. *THAMNOPHIS SIRTALIS PARIETALIS* Say. Rocky Mountain Garter Snake.
Hot Springs (Combs).
63. *THAMNOPHIS EQUUS* Reuss.
Hot Springs (Combs).
64. *STORERIA DEKAYI* Holbrook. DeKay's Brown Snake.
Hot Springs (Combs and Hurter), Little Rock (Hurter).
65. *TROPIDACLONIUM LINEATUM* Holbrook. Lined Snake.
Missouri, Kansas (Fort Scott), Oklahoma, Texas.
66. *HALDEA STRIATULA* Linn. Brown Snake.
Hot Springs (Combs), Texarkana (Hurter), Fort Smith (Pierson).
67. *COLUBER OBSOLETUS* Say. Black Snake.
Eureka Springs (Hurter), Fort Smith (Pierson).

68. COLUBER OBSOLETUS CONFINIS B. & G. Red-headed Black Snake.

Fort Smith (Whipple). Type specimen of *C. loetus* B. & G. Brown considers this the same as *C. spiloides* B. & G., but we do not agree with him.

69. COLUBER GUTTATUS Linn. Spotted Snake.
Greenway (Meek).

70. COLUBER EMORYI B. & G. Emory's Snake.

A specimen of this species in the National Museum Collection is labeled "Arkansas." As the range of this snake includes Missouri, Kansas, Oklahoma and northern Texas, it may prove to be of common occurrence in the western half of Arkansas.

71. PITYOPHIS SAYI Schlegel. Bull Snake.

Strecker has a poorly preserved example of this species, which was collected near Mena, Polk County.

72. ZAMENIS FLAGELLUM Shaw. Coach-whip Snake.
Fort Smith (Pierson).

73. ZAMENIS CONSTRICTOR Linn. Blue Racer.

Hot Springs (Combs), Little Rock (Hurter), Greenway (Meek), Fort Smith (Pierson).

74. CYCLOPHIS AESTIVUS Linn. Keeled Green Snake.

Hot Springs (Combs), Little Rock (Hurter), Greenway (Meek), Fort Smith (Pierson).

75. LIOPELTIS VERNALIS Harlan. Grass Snake.
Arkadelphia (Meek).

76. DIADOPHIS PUNCTATUS Linn. Ring-necked Snake.
Greenway (Meek).

77. DIADOPHIS REGALIS B. & G. Regal Ring-necked Snake.

Hot Springs (Combs and Hurter), Eureka Springs (Hurter). These are examples of the color variety *arnyi* (Kenn).

78. *LAMPROPELTIS DOLIATUS* Linn. Scarlet King Snake.
Hot Springs (Combs and Hurter), Fort Smith (Pierson). The variety *gentilis* B. & G. occurs in western Louisiana, Texas, Oklahoma, and, in all probability, Arkansas.
79. *LAMPROPELTIS GETULUS HOLBROOKI* Stejn. Holbrook's King Snake.
Hot Springs (Combs and Hurter), Fayetteville (Meek), Pine Bluff (Hurter).
80. *LAMPROPELTIS CALLIGASTER* Say. Evans's King Snake.
Greenway (Meek).
81. *CARPHOPIUS VERMIS* Cope. Western Ground Snake.
Little Rock (Hurter), Fort Smith (Pierson).
82. *FARANCIA ABACURA* Holbrook. Hoop Snake.
Greenway (Meek).
83. *VIRGINIA ELEGANS* Kenn. Virginia's Snake.
Missouri, Louisiana, northern Texas.
84. *HETERODON PLATYRHINUS* Lat. Spread Head or Blowing Adder.
Greenway (Meek), Fort Smith (Pierson), Hot Springs (Combs), Altus (Hurter).
85. *TANTILLA GRACILIS* B. & G. Graceful Tantilla.
Hot Springs (Combs and Hurter), Little Rock (Hurter), Fort Smith (Pierson).
86. *ELAPS FULVUS* Linn. Coral or Harlequin Snake.
A specimen from "Arkansas" (no definite locality) is in the National Museum Collection. Students of Baylor University from southwestern Arkansas have repeatedly identified *Elaps* from Texas as the same species of "red, yellow, and black snake" that occurs in their own part of the country.

Family VIPERIDAE.

87. *ANCISTRODON CONTORTRIX* Linn. Copperhead.
Hot Springs (Combs and Hurter), Greenway (Meek),
Fort Smith (Pierson).
88. *ANCISTRODON PISCIVORUS* Lacepede. Cotton-mouth
or Water Moccasin.
Hopedale (Hay), Fort Smith (Shumard and Pierson),
Hot Springs (Combs), Paragould (Hurter).
89. *SISTRURUS MILIARIUS* Linn. Ground Rattlesnake.
Sans Bois Creek, Ark. (Jeffers. U. S. Nat. Mus. Coll.)
90. *CROTALUS HORRIDUS* Linn. Timber Rattle Snake.
Hot Springs (Combs), Paragould (Hurter), Donald-
son (Meek). A specimen of the eastern diamond rattle-
snake (*Crotalus adamenteus* Beau., in the National Mu-
seum Collection, is labeled "Arkansas," but probably
through error. *Crotalus horridus* is the prevailing form
of large rattlesnake throughout Missouri, Arkansas,
eastern Oklahoma, and northeastern Texas.

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